

ASPHALTIC CONCRETE - 4.75 mm Mix		
	DESIGN REQUIREMENTS	
±0.4	Range for % AC	6.00-7.50
	Design optimum air voids (%)	4-7
	% Aggregate voids filled with AC	50-80
	Tensile splitting ratio after freeze-thaw cycle (GDT 66)	80% minimum

* Mixture control tolerance not applicable to this sieve for this mix.

Design this mixture at Superpave Mix Design Level A.

B. Fabrication

General Provisions 101 through 150.

C. Acceptance

General Provisions 101 through 150.

D. Materials Warranty

General Provisions 101 through 150.

Section 830—Portland Cement

830.1 General Description

This section includes the requirements for Portland cement, including Portland blast-furnace slag cement and Portland-Pozzolan cement.

830.1.01 Related References

A. Standard Specifications

Section 831—Admixtures

B. Referenced Documents

AASHTO M 85

AASHTO M 240

QPL 3

830.2 Materials

830.2.01 Portland Cement

A. Requirements

Use only Portland cements that are listed in QPL 3.

1. Types

Use Portland cement that meets the requirements in AASHTO M 85. Portland cement types include:

Use	High Early Strength Concrete	Remaining Portland Cement Concrete
Portland cement	Types I or III	Types I or II

2. Ensure that the Portland cement concrete meets the low alkali and the false set requirements of AASHTO M 85.

3. Do not use cement that is damaged, partially set, lumpy, or caked.
4. Mixing and Storing
Do not mix or store different brands or types of cement in the same bin. Do not mix or store the same brand of cement from different mills in the same bin.

B. Fabrication

General Provisions 101 through 150.

C. Acceptance

See the requirements in AASHTO M 85.

D. Materials Warranty

General Provisions 101 through 150.

830.2.02 Portland Blast-Furnace Slag Cement

A. Requirements

Use Portland blast-furnace slag cement in cement stabilization that meets the requirements of AASHTO M 240, Type IS.

B. Fabrication

General Provisions 101 through 150.

C. Acceptance

See requirements of AASHTO M 240, Type IS.

D. Materials Warranty

General Provisions 101 through 150.

830.2.03 Portland-Pozzolan Cement

A. Requirements

Use Portland-Pozzolan cement that meets the requirements of AASHTO M 240, Type IP, with the following modifications:

1. Limit the fly ash content to a maximum of 25 percent by weight.
2. Limit the Pozzolan to fly ash that meets the requirements of Subsection 831.2.03.
3. If grinding fly ash with Portland cement clinker to produce Portland-Pozzolan cement, do the following:
 - a. Exclude the fineness and the loss-on-ignition requirements of Subsection 831.2.03.
 - b. Ensure that the final blend of Portland-Pozzolan cement meets AASHTO M 240, Type IP requirements.
4. Wherever the Standard Specifications allow or specify Portland cement that meets the requirements of Subsection 830.2.01, you may substitute Portland-Pozzolan cement that meets the requirements of this Subsection.
5. If the substitute cement results in a higher cement factor than required for Type I cement, the cost of the additional cement will be borne by the Contractor.

B. Fabrication

General Provisions 101 through 150.

C. Acceptance

See the requirements of AASHTO M 240, Type IP.

D. Materials Warranty

General Provisions 101 through 150.